

CLAIMS

1. Device supporting a rotating frame (1) for a filtration installation with
5 filtration cells disposed in a carousel, comprising

- support rollers (2) that each have a pivot axis (3) and that support the
rotating frame so as to allow a rotation of the latter about a rotation axis (13)
of the carousel, and

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- per roller (2), a fixed bearing (11) that supports the roller so as to allow its
pivoting, the bearing comprising a first arm (9) and a second arm (10)
disposed on each side of the roller (2) in order to carry it so as to allow its
pivoting,

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characterised in that, according to the forces applied to the roller (2) by the
rotating frame (1), the first arm (9) passes from first bending state to a
second bending state and vice versa independently of a bending state of the
second arm, and respectively the second arm (10) passes from a first
20 bending state to a second bending state and vice versa, independently of
the bending state of the first arm.

2. Device according to claim 1, characterised in that each of the arms (9,
10) of a bearing has a first end fixed to a base (12) and a second end that
25 carries the roller (2) and that is situated at a distance from the base, variable
according to the said forces applied to the roller.

3. Device according to claim 2, characterised in that each arm (9, 10) of a
bearing (11) has the general shape of a U on its side, the said first end and
30 the said second end of which move closer together or further apart

according to the said forces applied to the roller.

4. Device according to claim 1, characterised in that each arm of a bearing comprises a first rigid part (15) that carries the roller and a second part (14, 17) that supports the said first part in a flexible manner on a base.

5. Device according to claim 4, characterised in that the second part comprises a lever arm (14) that is connected to the base so as to be able to pivot about a fixed axis and a return spring element (17) that supports the lever arm on the base, at a distance from the fixed axis.

6. Device according to claim 1, characterised in that each arm of the bearing is a flexible cantilever arm that at one end is connected fixedly to a base and at an opposite end carries the roller in a flexible manner.

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7. Device according to any one of claims 1 to 6, characterised in that each bearing arm carries the roller (2) so as to allow a vertical downward movement of the pivot axis (3) of around 2 mm.

20 8. Device according to any one of claims 1 to 6, characterised in that the pivot axis (3) of the roller is horizontal in the first bending state of the arms (9, 10) of the bearing and in that each bearing arm carries the roller so as to allow a tilting of the pivot axis of around 20° from the horizontal.

25 9. Device according to any one of claims 1 to 7, characterised in that the rollers are cylindrical.

10. Device according to any one of claims 1 to 7, characterised in that the rollers are conical.

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11. Device according to any one of claims 1 to 9, characterised in that the rollers are provided with a tyre made from cast iron, steel or a synthetic material.
- 5 12. Device according to any one of claims 1 to 11, characterised in that the roller comprises a central roller bearing allowing its pivoting about its pivot axis.